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OLDEST BEE PAPER IN AMERICA

GEORGE W. YORK, Editor. | DEVOTED EXCLUSIVELY—TO BEE-CULTURE. | Weekly, $1.00 a Year. Sample Free.

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Who Taught the little busy bee
For honey sweet to dip,
And snigger round each blooming flower,
Until she gets a sip?

If she but understood her game,
No honey would she give,
But simply take enough each day
To enable her to live.

Then when the autumn winds did blow,
She'd calmly strut about;
For they wouldn't burn her bally hive,
Nor with brimstone funk her out.

—*London Sporting Times.*

Welcome is the honey the visiting bee finds in the flower.

Volume XXXII we begin with this number of the BEE JOURNAL. We are not going to make any promises as to the future, only to say that if you fail to read the BEE JOURNAL right along from now on you will miss something that might prove very valuable to you. We hope that you will not only continue to read the BEE JOURNAL yourselves, but that each one may get somebody else to read it regularly. By this, you will not only be doing us a great favor, but will be helping your friends to a means of gaining practical help in bee-keeping.

The Foul Brood Cure, as practiced by Mr. McEvoy, the Foul Brood Inspector of Ontario, Canada, we publish in full this week, on page 15. We wish that those whose apiaries are afflicted with that terrible malady would give Mr. M.'s method a thorough trial, and then report results. He says that "the best bee-keepers in Canada like it the best of any method yet offered, and it is well and favorably known in Ontario, not even one to find any fault with it."

The Prospects are Good for a large yield of honey this year, if we may judge from the reports we have been receiving the past few weeks. *Gleanings* said, in its issue for June 15th, that "Everything seems to indicate a big honey crop this summer." We hope that the final results may be as good as are the indications, and that bee-keepers may this year be well repaid for the great patience they have exercised during the past four or five poor honey seasons.

The Michigan Apiarian Exhibit at the World's Fair will yet do credit to that great and progressive State. Bro. Cutting is pushing matters as rapidly as possible, and if he can get the hearty co-operation of all the wide-awake bee-keepers of Michigan, success will be assured. Here is a letter we have received from him, which should be carefully noted:

In carefully looking over the statistics of the different agricultural products of the United States, I find that Michigan stands at the head in many products. It is conceded that Michigan produces some of the finest honey, and that her exhibits of honey have never been excelled in this country.

So great has been the demand for Michigan honey that all old honey was sold last fall, and it was impossible to procure a suitable exhibit for the World's Fair.

I have just returned from Chicago, after making final arrangements for an exhibit of Michigan honey, wax, etc. To make that exhibit, I must appeal to the honey-producers to come forward and lend a little help. The amount granted for a honey exhibit, by our State Commission, was so small that it is impossible to buy honey enough to make a suitable exhibit worthy of Michigan, but if *you* will *lend* just a little of your assistance, we will be enabled to make up a fine exhibit.

I would like to correspond *at once* with any honey-producer in Michigan, and will give all particulars. Let us all unite in getting up a fine exhibit, and when you go to the World's Fair you will be proud to find "Michigan, my Michigan!" well up in the front rank of honey exhibits.

Tecumseh, Mich. H. D. CUTTING.

As the time is short, action should be taken *now*. Bro. Cutting has the promise of several lots of nice honey. He is working hard to make a success of the matter, for a fine honey exhibit will help the sale of honey all over the country. It will not only help the producers, but publishers and dealers. It is an opportunity that must be improved by all. It will show the people that PURE HONEY is produced, and that they can procure it in its pure state. Let every bee-keeper help to call attention to the honey exhibit made in the Agricultural Building at the greatest Fair on earth, and thus *educate* the people in the sweetest and purest sweet produced.

Purifying Dark Beeswax.—The *Progressive Bee-Keeper* gives the following directions for purifying dark wax, that may help some of our readers who have desired to know how to do it:

If you have any dark beeswax, put it into a tin or iron boiler, get it as hot as you can without boiling over, pour off in a wooden vessel of sufficient size to hold the wax—a water bucket for a small lot, or a barrel for 100 pounds or more. After you get it into the wooden vessel, add to the wax ¼ pound of sulphuric acid to every 50 pounds of wax; let it settle for 30 minutes, and dip off in small vessels for cooling. When cooled it will be of a bright straw color. The acid can be obtained at almost any drug-store at 20 cents per pound. One-fourth pound will purify 50 pounds of wax. Try it, and get from 2 to 5 cents more per pound for your wax.

Read our great offer on page 5.

The Winter Losses of bees the past winter were not as great as was at first supposed. Here is what Bro. Root says about the matter in *Gleanings* for June 15th:

In our issue for May 15th we called for reports as to how the bees had wintered. The first question was this: What percentage of your bees have wintered? and the second, What percentage of the bees in your locality, as nearly as you can estimate, have wintered?

By summing up all the reports that have been received within the two weeks just past, we find the total aggregate is 77 per cent. to Question No. 1; for No. 2 the per cent. is only 57. This is much better than we expected it would be, as it seems the losses were not as heavy as the reports seemed to indicate early in the season.

The greatest mortality seems to have been in New York, Indiana, Wisconsin, Illinois, Ohio, and Michigan, in the order named. Throughout the whole South there seems to have been, as usual, but little if any loss, and that only from starvation. The reports were not as numerous as we could have desired, yet they are sufficiently so to give us a very fair idea of the condition of bees througout the country.

Samples of Foundation we have received from Mr. W. H. Norton, of Skowhegan, Maine. They are very fine, indeed, and show what superb work is being done now-a-days in the manufacture of comb foundation.

German Writing, we find, is not one of Dr. Miller's many accomplishments. On page 775, we made some reference to one of his contributions to the *Centralblatt*, a German bee-paper, but the following letter explains how it happened to be published in such "fine German language:"

MARENGO, Ill., June 23, 1893.

DEAR EDITOR:—That communication in the *Centralblatt*, of which you speak on page 775, "Written in as fine German language as any one could wish for," when it entered the post-office at Marengo was written in fairly good English. Do you suppose the salt sea air, as it crossed the ocean, changed it to German? I strongly suspect that Herr Lehzen, the able editor of the *Centralblatt*, took liberties with that manuscript, and that the "fine German" is his. But as I am not one of those who insist that an editor must make no change, and that everything must be published *just as written*, I can find no fault.

The truth is, that I wouldn't be sure of writing even a very short sentence in German without making such ridiculous blunders that it would be dangerous to print them in a German paper for fear of killing off some of the German population with

laughter. I can neither write nor speak German, and it is only by slow plodding with a Dictionary in hand that I can make out some of the good things in the German bee-journals.

Now you see what you've done with your careless editorial, for if you had kept still I might have gotten up a reputation as a German scholar, but you have put things in such shape that I didn't dare to keep still, hence this expose. C. C. MILLER.

The Doctor can't imagine how sorry we are that we were so "careless" as to lead him into almost a compulsory explanation. But if "confession is good for the soul," he ought to be a happier soul now than before he wrote the above letter. Of course our previous editorial was intended as a partial pleasantry—not a "scientific" one, however. We also wished to show how hard the worthy President of the North American Bee-Keepers' Association was working to get our foreign German bee-brethren to attend the convention here in Chicago on Oct. 11th, 12th and 13th.

Yah, dot ish goot!

You didn't know we could talk German like that, did you? But we don't think we had better try it any further, for fear that we, too, would feel that an explanation was necessary.

LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Langstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above $1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—ED.]

List of Contributors.

George W. York, Chicago, Ill.	$1.00
Dr. C. C. Miller, Marengo, Ill.	1.00
M. C. Godfrey, Dorsey, Nebr.	.25
John P. Weibler, Lombard, Ill.	.25
L. E. Fountain, Garrett, Ind.	.25
A Friend, Juneau, Wis.	.25
Total	$3.00

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Brood-Frames from Diseased Colonies.

Will brood-frames that are half full or more of honey of last year's crop, spotted some by bees that had diarrhea, do to put in for a new swarm?

Kingsley, Pa. T. J. TIFFANY.

ANSWER.—Yes, such combs can be given at any time to old colonies that need them, or to swarms.

Commission Paid for Handling Honey.

What is the usual percentage of commission paid for selling comb honey if all freight charges are paid by the apiarist himself? Also the commission on extracted honey? O. A. CUSTER.

Lebam, Wash.

This question we referred to Messrs. R. A. Burnett & Co., who are "commission merchants," and they reply as follows:

The following are our rates of commission that went into effect January 1st, 1893. (Previous to this date our rate was 5 per cent. on consignments of all sizes.):

COMB HONEY, where gross proceeds of consignment fall short of $100, commission is charged at the rate of 10 per cent. Where the gross proceeds of a consignment exceed $100, commission is charged at the rate of 5 per cent.

EXTRACTED HONEY is governed by the same rule.

Our reason for changing to a 10 per cent. rate on the small lots, shipments, or consignments, was that the small invoices cost us much more to handle and dispose of than the large, in proportion to the cost of the whole.

1st. The consignment, small or large, takes same number of entries through the various books.

2nd. Small lots have to be peddled out in the single package way, as they seldom grade or class with other small lots, and as many packages of each have

to be examined to effect a sale as of a large lot.

3rd. The best buyers want a lot to run uniform in cases, color, quality and style.

4th. It aids in breaking up the custom of some producers, of sending a few cases at a time. A large shipment is less liable to be injured in transit than a small one, and often brings a little higher price.

5th. We do not vary from the rates above mentioned, whether freight is prepaid or otherwise.

R. A. BURNETT & Co.

Increase, Not Honey, Wanted.

Please tell me how I can increase my bees. I have a colony of Italians on six Langstroth frames, but they will not swarm, on some account, I do not know what. They are getting plenty of honey and pollen for building up on. They also build queen-cells on the comb where there is no brood, for some cause or other. I want to increase my bees. It is not the honey I want, but more bees.

PORTER FEATHERS.

Whitesburgh, Tenn.

ANSWER.—The probability is that before this is in print your bees will have swarmed. Their building queen-cells is probably preparatory to swarming, although sometimes when queen-cells are built it does not indicate contemplated swarming but supersedure of the old queen.

If they do not swarm, one way that will be a good deal like natural swarming is as follows: Open the old hive, find the queen, set the comb containing her, with its adhering bees, in a new hive, and put this new hive on the old stand after removing the old hive to a new stand 5, 10, or more feet away. Put a frame of empty comb or foundation in the old hive to replace the frame of brood taken away, and fill up the new hive with empty combs or frames of foundation.

For the next day or two all the field bees, on their return from the fields, will return to the old stand and join the queen, and the bees in the old hive will rear a queen. If you operate at a time of day when the young bees are out at play, they will also join the new swarm, and if you want to make still more sure of having the new swarm strong you can shake or brush the bees from part of the combs in front of the new hive. There is just a little danger that in this last operation you may make the old colony so weak that it cannot properly take care of its brood.

If the new swarm be made strong, you may count on its doing fair work in the surplus chamber. But as you want bees and not honey, you will not care to do anything to strengthen the new colony.

If you want to increase still farther, you can form one or more nuclei by taking from the old hive two frames of brood and putting into a new hive. See that no hive is left without a queen-cell. This last change should be made nine or ten days after making your first swarm, unless there were queen-cells present at that time, in which case you must make your nuclei sooner, as the first queen that hatches is likely to kill all the remaining queen-cells.

Another way which may ensure better queen-cells, is to leave the old hive on the old staud, taking from it two or three frames of brood with adhering bees, also the queen, and putting them in a new hive on a new stand. This will leave the old colony strong, and before the first queen-cell has time to hatch, say in nine or ten days from the time you made the change, you can divide it up into two, three or more parts, forming a nucleus with each part. The bees from this queenless colony will remain on any new stand much better than bees taken from a colony having a laying queen.

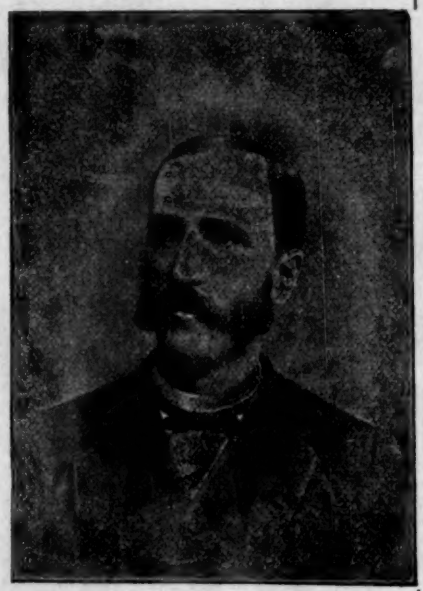
It isn't a hard thing to make a number of new colonies from an old one, but it is also a very easy matter to have them so weak that none of them will live through the winter. Be sure, then, not to make the mistake of trying to increase too rapidly—a mistake that you are pretty sure to make in spite of any advice to the contrary.

Bee-Keeping for Profit.—We have just issued a revised and enlarged edition of Dr. Tinker's book, called "Bee-Keeping for Profit." It details his most excellent "new system, or how to get the largest yields of comb and extracted honey." The book contains 80 pages in all, and is illustrated. Price, postpaid, 25 cents, or clubbed with the BEE JOURNAL for one year, for $1.15.

Bicycles are getting to be very common now-a-days. We have two for sale, and any one wanting a bargain in a good bicycle, should write to the office of the BEE JOURNAL.

W. Z. HUTCHINSON.

Our friend and co-laborer in apiarian journalism, W. Z. Hutchinson, was born in Orleans county, N. Y., on Feb. 17, 1851. He was the eldest child, and



W. Z. HUTCHINSON.

when four years old, his parents moved to Michigan, on a farm in Genesee county, where he remained until a few years ago, when he went to Flint, Mich., where he now resides and publishes the *Bee-Keepers' Review*.

An interesting reminiscent account of himself Bro. Hutchinson gave to the readers of the *Review* for December, 1892, from which we extract the following paragraphs:

One great difficulty in my youth was the lack of opportunities to earn money. The first money that I earned to amount to anything was earned trapping. As soon as I had money to use I began buying books. This was after I had reached my teens. I always had a great desire to know the *reason of things*, to delve into mysteries, to know something about common things that everybody did not know, hence I had books on swimming, on trapping, on phrenology, physiogomy, mesmerism, physiology, etc. Of all the old books that mother had, I think none were studied with more interest than two on natural philosophy. It was this trait of mine that led me into learning short-hand.

At 17 I began teaching school. I taught seven terms. I liked teaching very well, but it was too trying on my "nerves." From the time I was 18 until I was 25, I did a great deal of canvassing. I worked mostly at selling picture-frames.

When 19 I was teaching school one winter and "boarding round." I came across "King's Bee-Keepers' Text Book." Here was a new mystery—one of those things that I delighted to revel in. Upon inquiry I learned that the owner had bees down cellar. We went right down to see how they were wintering. The next summer I passed three days, while on a canvassing tour, at the house of this friend. It was in swarming-time. The enthusiastic part of my nature was roused to a pitch that I think it never before had reached. I began studying bee-keeping in real earnest. Every bee-keeper was questioned; every scrap of information that could be found in papers was pasted into a scrap-book.

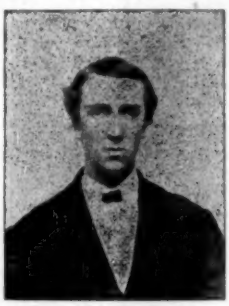
When I was about 20, as I was peddling, I made a sale to a farmer living 16 miles from my home. After making the sale, I begged to be allowed to stay all night, although it was then only 3 or 4 in the afternoon. I had discovered a row of brightly-painted hives in the rear of the house, and I wanted to "talk bees." I stayed. In a few months I went there again to "talk bees" and I stayed two days. I kept going to "talk bees" until finally the age of 22 found me "talking love" to Miss May Simpson, the farmer's only daughter.

Two happy years of courtship ended in a marriage that has proved all I ever hoped or dreamed. During those two years I several times walked those 16 miles to see "my girl." I walked to save livery hire.

The next year after we were married

I began bee-keeping with four colonies. Oh, the enthusiasm of that first year with the bees! I think that I learned to recognize every comb in my little apiary. The bees were in the American hive. The bodies were painted white and then "marblized" by moving a smoking lamp under the paint while it was fresh. Each cap was painted a different color. The hives stood four feet apart in a row. On the south of each hive were planted three or four sunflowers for shade. The marblized hives with their different-colored covers nestling in under the green leaves of the sunflowers surmounted with their great yellow blossoms formed a picture that will ever linger in the memory.

To a distance of six feet in front of the hives the turf was removed, *a la*



"*W. Z.*" *at 18.*

Boardman. Every few mornings I swept the ground in front of the hives with a broom. I did this early in the morning for I really didn't want to be laughed at about it. I made $60 profit from the bees that season.

How did I come to start the REVIEW? Well, as I advanced in knowledge of bee-keeping, I was often struck with the amount of matter that was published from which it seemed there was little information to be extracted. At this time I was also reading the *Rural New Yorker*. It occasionally gave special numbers just the same as the *Review* has been doing. From these sources came the idea of making the *Review* what it is. For at least three or four years before beginning the publication of the *Review*, I had its publication in mind, and was planning for the work. Owing to the poor seasons and sickness that have come since the *Review* was started, I have seen many times when it seemed as though I had come up squarely against a stone wall, but I kept on going, and at last the "stones" would tumble this way and that, and I would go on again.

We do not remember the exact date when we first met Bro. Hutchinson, but it must have been at least eight years ago, when he came to Chicago to attend a bee-keepers' convention.

The *Review* is doubtless Bro. Hutchinson's best work, being the result of years of patient and laborious toiling, and planning, and at times overcoming of seemingly insurmountable difficulties. But he has finally gained the victory, as is clearly shown by the following item, taken from a recent number of the Flint *Globe*:

A FLOURISHING INSTITUTION.

W. Z. Hutchinson, publisher of the *Bee-Keepers' Review*, in the First Ward, has had his printing-office in what was originally a family bedroom in his house. He is just now finishing a room in the west wing of the house, 26x18 feet, on the first floor, which he will use for his work-room and office. It is well lighted and easy of access, and well adapted to the purposes for which it is intended. Mr. Hutchinson sets the type for the *Review* himself, but the press-work is done in the *Globe* office. It is now recognized as among the leading apiarian publications in the United States, and its financial success is no longer a problem. It is a periodical that reflects credit on Flint, and stamps Mr. Hutchinson one of the best authorities on bee-culture in this country.

Of course Bro. H. needs no introduction to the older readers of the BEE JOURNAL, for many of them have met him at conventions, or at Fairs where he delights to capture cash prizes and the highest premiums offered for honey and bee exhibits.

Mr. H. is the father of four lovely daughters—Nora, Cora, Ivy and Fern—the youngest of which is a little less than a year old—a "golden-haired, violet-gray-eyed baby"—and we think its papa considers it the little "queen" of the family. No doubt it rules, and its every demand is granted without question.

"**Bees and Honey**"—see page 3.

CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

The Honey-Plants of Northern Texas, and How to Utilize Them.

Read at the late Texas State Convention

BY DR. WM. R. HOWARD.

(Continued from page 813.)

Flaxweed (*biglovia virgata*, D. C.) blooms about the first of August, continuing until frost, but is not visited by the bees until later, when other and better flowers are scarce; the honey is bitter and pungent.

We have another plant of the genus *solidago*, or a closely allied genus, which I have never taken time to determine satisfactorily, which blooms in August, and furnishes an inexhaustible quantity of honey until frost. There are hundreds of acres of this plant in this country, common in old, vacant fields and waste-places, etc. With a favorable fall bees will get very sick from it. The honey is so pungent and fiery that no one can eat it; even the smallest portion of it will create a burning sensation in the mouth, throat and stomach. I have seen persons who have eaten not more than a few ounces, and it caused such distress that vomiting followed by violent purging, lasting several hours, was the sequel; persons who could eat pure honey with impunity, and were fond of it, too. Such is the character of this honey that most persons have supposed it to come from pepperwood (*A. spinosa*), the taste of which is very much like prickly-ash (*xanthoxyhum*). The honey is of fine appearance, being as transparent as water, but of medium consistency, and slow to granulate.

It will remain liquid from six to ten months, and may be readily extracted from the combs after twelve months. I know of no method by which the pungency may be removed; I have tried boiling to no purpose. I made some experiments during the years 1880, 1881 and 1882, testing the abundance of this flow. I extracted all of the available honey in my yards during the last week in July in 1880 and 1881. I removed all the combs containing sealed honey, supplying comb foundation in order to get a greater number of combs, to be utilized during the rush and honey-flow for the following seasons; in 1881, each strong colony filled from 8 to 10 frames with this honey during the season; this honey was used in securing strong colonies early in the following seasons. My bees wintered well on this honey.

I will mention one more plant which deserves especial attention, and is easily grown, I refer to sweet melilot, or sweet clover; it is not a clover nor in any way related, but is commonly called by that name. You are all so well acquainted with this plant that it is unnecessary to describe it. When we have suitable seasons this plant yields an abundance of honey, and is most frequented by the bees in the afternoon. The honey is first-class in quality, having a peculiar aromatic flavor, which is very delicious. I once had my entire horsemint crop flavored with this honey.

There are many other plants of minor importance which time forbids mentioning. My yards were run for extracted honey, except one yard of black bees consisting of 20 or 30 colonies which was devoted to the production of comb honey exclusively.

My method of obtaining strong colonies early in the spring for the ratan-vine yield, was to encourage early breeding by feeding liquid honey, or furnishing honey in the combs near the brood-nest in good worker-comb, so that as fast as the honey was consumed, the combs were filled with brood; by this method I have had my colonies all strong by the time the flow came on.

The most difficult problem was to prevent swarming. A good plan is to go over the yard about the time the honey-flow begins in good earnest, and remove all the queen-cells, place all sealed brood away from the center of the hive, and give plenty of room for the queen, by inserting empty worker-combs, which may be utilized for brood. If this is done in the afternoon it will afford the queen a better opportunity to utilize the space. The workers will fill every comb with honey as fast as the brood hatches. In a few days go over the yard and remove all combs containing sealed brood, as well as those containing honey, and place in the upper story, leaving the

combs containing unsealed brood below. Three or four combs may be found in each hive, for the upper story; a number of hives are visited, and enough combs taken to fill the first upper story, replacing in each case with good worker combs. Care should be taken not to remove sealed brood enough to weaken the colonies.

Go over the yard in this manner, again and again, until every hive is made "two story." Empty combs may be used above and below where practicable. All sealed combs of honey may be removed to the honey-house, and replaced by empty ones, or good wired comb foundation; when comb foundation is used, put it in the lower story in the brood-nest, and it will be drawn out and filled with brood, which toughens it, making it less liable to break during extracting.

Should you run short of combs you may take time to extract and return the combs. Managed in this manner we give plenty of room, and secure the largest possible yield, and never carry sealed brood to the extractor or honey-house.

Some complain that the queen gets into the upper story; it makes very little difference where she is now, as we do not need her work at this time if we have strong colonies; and, besides, she cannot deposit eggs in the upper story if every cell has some honey in it, which is nearly always the case if this method is followed, and the extra amount of room given prevents to a great extent the swarming.

If a swarm issues before the second story is put on, during a heavy honey-flow, by the exclusive use of clipped-wing queens, the queen is captured and caged, and the parent hive moved to one side, and a hive containing empty combs placed on the old stand, to which the bees will usually return in a few minutes, and as they enter the queen is allowed to accompany them, a second story is put on, and the contents of the parent hive lifted to it, after destroying all queen-cells, and young queens should any be present. This usually settles the swarming fever of this colony, for the time being.

Right here allow me to say that this is the manner in which I manage all natural swarms when I desire to increase my stock; except that I remove at once the newly-hived swarm to a distant part of the yard, replacing the parent hive on its original stand; and should it swarm again, after the bees are all out, I overhaul the brood-chamber, removing all queens and queen-cells, disorganize the brood-nest, and return the swarm to the original hive, and place it on the old stand. After the first brood hatches from this young queen, and proves satisfactory, her wing is clipped. Each hive, or stand, is numbered; and by having universal covers, the same cover may be used for any hive that may be placed on the stand.

SOME HARMONIOUS BEE-NOTES.

Never waste time in wintering weak colonies.

Never take from a strong colony in the spring to build up a weak one, as you may lose the work of both of them.

Never keep a superannuated queen in your yard.

Never leave a newly-hived swarm near the place where it clustered, as you may be surprised by its taking to the woods. Remove it to a stand at a distant part of the yard at once, whether all the bees are in or not.

Strong colonies protect themselves against robbers and the bee-moth.

Strong colonies at the proper time insures a successful honey harvest.

A large number of extra combs are necessary where extracted honey is our aim.

Black bees are better architects than Italians, and can gather as much honey; but the docility of Italians allows us to handle four colonies where we can one of the blacks.

Ft. Worth, Tex.

Italians Ahead of the Blacks.

MRS. ATCHLEY:—The honey harvest here will soon be over, and I do not think there will be over half a crop, but I will send a report from this neighborhood later, after the final round-up. The queens I reared from the old queen last season have turned out to be fine honey-gatherers. Several of their colonies have filled 216 one-pound sections each, and are likely to fill another super, while some of the blacks that were stronger in the spring than the Italians have only put up 24 pounds so far. The new queens are doing very well; their bees are beauties—the best marked I ever saw. I will not be able to test them as honey-gatherers this season, as I am using them to rear queens, as I intend to re-queen my apiary entirely.

JOHN COLLINS

Elsinore, Calif., June 15, 1893

How to Cure the Foul Brood Disease Among Bees.

Written for the American Bee Journal

BY WM. M'EVOY.

This disease has destroyed hundreds of apiaries at all times, in almost every land where bees have been kept, and it is to-day making its deadly march unchecked through the bee-yards of the world.

For 17 years I have warned the bee-keepers to keep all dead and putrid matter out of their colonies, so as not to cause foul brood, and while I have been warning and holding up Death's head and the cross-bones, the professional guessers, who were not practical bee-keepers, have been encouraging the wholesale spread of the disease by saying that rotten brood in hives of bees would not cause foul brood. Such teaching as that has caused thousands of bee-keepers to be very careless, and when the disease has broken out in their bee-yards, it was left to run its course to the ruin of their apiaries, and all others in the same localities. It is only the very few among many thousands of bee-keepers that have succeeded in curing their apiaries of foul brood after it got a good start in their bee-yards, and the owners left to themselves to manage the curing.

I will now give my methods of curing foul brood, which cannot fail when followed exactly as I order.

In the honey season, when the bees are gathering honey freely, remove the combs, and shake the bees back into their own hives in the evening; give comb foundation starters, and let them build combs for four days. In the evening of the fourth day, remove the comb, and give foundation to work out, and then the cure will be complete. Fill an empty two-story hive with the combs of foul brood that have been removed from two or more diseased colonies, close them up for two days, and shade them from the sun; after that open the entrance, and when most of the brood is hatched, remove those combs, and give the bees starters of foundation in a single hive, and let them build combs for four days. Then in the evening of the fourth day, take out those new combs, and give them foundation to work out.

Let it be remembered that all of these operations should be done in the evening, so that the bees will become settled down nicely before morning.

Before extracting from the diseased combs, all the combs that were not sealed *must be cut out* of the frame, or some of the decayed brood will be thrown out with the honey. Then after cutting out the unsealed comb, uncap the sealed honey, extract it, and bring it to a boil.

All the foul combs, and the new combs that were built in the four days, must be made into wax, and the dross from the wax extractor *must be buried*, because what runs with the wax would not be heated enough to kill the spores, and if it was thrown out where the bees could get at it, it would start the disease again.

When the diseased brood that was placed in the two-story hive is hatched, and the bees are given full sheets of foundation, then they should at once be given a queen-cell ready to hatch out, or a young queen; then every thing will be all right.

The empty hives need no boiling, scalding, or disinfecting in any way, and are perfectly safe to use, no matter how bad the disease may have been in them; and I have always got the curing done in the same hives. But as the frames get more or less daubed with the diseased honey when the combs are cut out of them, I always order the frames burned as soon as the combs are cut out, because it doesn't pay to waste valuable time fussing and cleaning old frames, when nice new ones are so cheap.

Where an apiary is diseased so badly that the colonies have become weak, then all the combs, both in and out of the hives, should be made into wax at once, and all the colonies doubled up at the same time, as it won't pay any person to waste time with weak colonies.

In some bee-yards I have put three and four colonies in one, to get fair-sized colonies to start on.

When the curing is to be done before or after the honey season, the greatest caution is to be used so as not to start robbing. The curing can be done just as well before and after the honey season by feeding plenty of sugar syrup in the evenings, so the bees will work out

the starters of foundation, and store the diseased honey in them, that they took from the old, diseased combs; and when the new combs are removed the fourth evening, and the foundation given, the feeding must be continued to get the foundation worked out and filled with plenty of good stores for winter.

When I find apiaries of foul brood at the close of the honey season, I get the queens caged in all the weakest colonies for about ten days, so that no brood can be started to become foul. I then get the owners to take the brood out of the strong colonies, and tier it up on the weak colonies with the caged queens. Then give the colonies starters as soon as the combs are removed, and feed sugar syrup in the *evenings* for four days; then remove the starters for foundation. Then at the end of ten days I get all the combs taken from the weak colonies that have the caged queens, and shake the bees into a single hive, give starters of foundation, let the queens out of the cages, and feed sugar syrup in the *evenings*, and remove the new combs the fourth evening for full sheets of foundation, and continue the feeding until all is in good condition. The colonies that were weak when the brood of other colonies was tiered up on them, will be very strong from the quantity of bees hatched out during the ten days.

I have to use considerable judgment in curing many foul-broody apiaries, so as to make the cure as profitable as possible, and have every colony a good, strong one when the season closes.

It is a very easy thing for one to cure a foul-broody apiary, and soon put it in good order, no matter how bad it was when I started to fix it up in good shape to cure it. But I have found it a very hard thing to handle all sorts of men so that they would cure, and do as I ordered them.

When a few colonies in an apiary are found with foul brood at the close of the season, the owner can very easily fix them up all right by removing the combs in an *evening* in October, when the queens *have done laying*, and giving *sealed* combs from *sound colonies*. If the owner has no sealed combs, he must feed until the bees in the sound colonies seal them for that purpose, and then when given to the foul colony the bees won't have any place to store the foul honey they took from the diseased combs, and then they will have to keep it until they consume it; and with no place to start brood, the queen stopped laying, and cold weather coming on, the bees will have gotten rid of the diseased honey long before brood is started again. Every bee-keeper should have, every fall, plenty of combs sealed over like the best of section honey. I have hundreds of them every fall.

I know of many failures in Ontario where the drug system has been tried, and I have many private letters from several localities in the United States where it has been a complete failure. I never knew one cure made by the drug system, and why any man should speak of it as a cure when it is always a failure, is something I can't understand.

I will here warn all men not to waste their time in tinkering with any kind of drugs in a bee-yard; the best place for such drugs would be in the sea—only it might be a sorry time for the fishes.

The D. A. Jones' starvation plan will cure every time, but it is too hard on the bees, and completely unfits them for comb-building for a time, by making the bees very thin, lean and poor; and the starving sometimes almost ruins some of the queens for life.

I have been very busy, or I would have written up my method sooner. I have received many letters from the bee-keepers from all over the United States, asking me to write and tell them how to cure their apiaries of foul brood. I know by the number of letters that I get from the United States by every mail, that foul brood must be very prevalent there. I am sorry that I could not find time to answer their very strong appeals for help. I hope these men will excuse me, and save the AMERICAN BEE JOURNAL with this article in it, and also take this as an answer to their letters.

Woodburn, Ont., June 19, 1893.

Bee-Paralysis a Disease—Pulled Queens.

Written for the American Bee Journal

BY H. F. COLEMAN.

On page 627 Mr. Demaree gives it as his opinion that bee-paralysis is not a disease, but that it is caused by a vegetable poison. This has been my opinion until recently, but I am now convinced otherwise. I now have a colony badly troubled with it, and we are having the finest honey-flow I ever saw. Poplar is in its prime, and white clover is beginning to be fine, and it seems impossible that bees would gather any poisonous nectar—if any exists—at this time.

This case is the only case of bee-paralysis that I have ever noticed in the

midst of a good honey-flow, but it has its lessons, and we may profit by them. I now firmly believe this trouble is a disease, and I am fearful that it is a contagious one.

My apiary is on a gently-sloping spot of ground, and on the hexagonal plan, with the hives eight feet apart. Last fall the disease made its appearance in one of the upper rows, and gradually worked its way downward, not missing a colony, until now the diseased colony spoken of is in the lower row. The diseased bees are driven out like drones at the close of the honey season, and will take shelter in any colony that will suffer them to enter; and as they are naturally driven down from the mouth of the hive, they are ready to enter the first hive below, and thus I account for the spread of the disease downhill, as in my apiary.

With good management, in keeping the queen laying, the diseased colonies usually come through, build up, and make good colonies, or at least this has been my experience; but with carelessness the result would be otherwise.

I give it as my opinion, and I don't think I am far wrong, that one-half, or more, of the winter loss in this locality is traceable to this disease. In the fall it so depletes the colonies that they easily succumb to the cold of winter, and if this be true, how essential it is that close attention be given at the proper time.

USING PULLED QUEENS.

Did you ever use a pulled queen in a colony of bees that had just cast a swarm? It works like a charm with me, and if you have never tried it, you would do well to do so. The plan is this:

As soon as the swarm is properly hived, go to a colony that has queen-cells ready to hatch, select a nice one, take it to the colony that cast the swarm, open the end of the cell, and let the young queen crawl out and go down among the bees, and your work is done.

The bees seem to think that this is the natural way of doing things, and will accept the young queen and be contented. You then have a queen six or eight days earlier than by waiting for one to be reared in the usual way, which is quite an item, whether running for bees or honey.

It is not every time, even after the first swarm in the season, that we can have cells ready to hatch when a swarm comes out, but in the swarming season we usually have them in some shape, and if we have none that are ready to hatch, we can still expedite the matter. The old colony will, as a general thing, accept any kind of a cell just after swarming, and by giving them a cell more advanced than those they have, we can get a queen earlier than by waiting for them to rear one in the usual way.

These things, of course, are not new to the experienced bee-keeper, but they are new to many, and are worthy to be remembered by all.

Sneedville, Tenn., May 23, 1893.

Are Bees Animals?—A Correct Decision Wanted.

Written for the American Bee Journal

BY DR. C. C. MILLER.

On page 752 a writer says, "Bees are not animals." Some time ago, I think the same statement was made in the *Canadian Bee Journal*. Occasionally, however, some one speaks of them as animals, and it would be a good thing if we could decide what is correct in the matter.

If we should hear some one say, "John has gone out to feed the animals," I think very few of us would think of bees as the things John was about to feed. Indeed, whether a wild or tame animal is spoken of, we are likely to think of some four-footed affair.

Let us see what the Dictionary says. Turning to the word "animal," we find an animal is "an organized living being endowed with sensation," etc., the full definition clearly taking in a bee as an animal. A second definition is: "One of the lower animals, a brute or beast, as distinguished from man; as, men and animals." But while this gives a use of the word that throws out man, it does not throw out the bee.

Starting at a different point, we find in the Dictionary that a bee is an insect; that an insect is one of the Insecta, and that Insecta in its most general sense includes the Hexapoda or six-legged insects, and in a more restricted sense the Hexapoda alone; and we are distinctly told that bees are among the hexapod insects; and finally, on turning to "hexapod," we find it is an ANIMAL having six feet.

So if we are to take the Dictionary as a guide, I hardly see how we can deny that bees are animals. If any one can bring any kind of proof to the contrary, I should be glad to see it, for I confess to some prejudice against the common use of the word in that way.

Marengo, Ill.

Experiments in Apiculture Made in 1892 at the Michigan Experiment Station.

Reported to the Department of Agriculture

BY J. H. LARRABEE.

During the season of 1892 the branch Station for experimenting in bee-culture at the Michigan Agricultural College was continued at the expense of the United States Department of Agriculure, Division of Entomology, and of the Michigan State Experiment Station.

An effort was made to undertake a line of experiments closely connected with the practical work of the apiary. While all of the experiments undertaken have not given results of practical value, some have. Especially gratifying are the results obtained in the experiments upon the subject of wax-secretion and the evaporation of honey, for the reason that they were nearly free from those elements of uncertainty that must necessarily enter into nearly all experimental work in the apiary, such as season and condition of bees.

When the bees were taken from the cellar, on April 18th, they were in rather poor condition, due doubtless to the dampness of the cellar and the character and amount of the stores. The loss during the winter and spring was about one-third of the number placed in the cellar.

In May and June the bees of the whole apiary were transferred from the old hives into modern dovetailed hives, and from the old reversible frames, of three distinct sizes, to the new, wide, thick, top-bar frames of the Langstroth size. In this operation all drone-comb or other imperfect combs were rejected and rendered into wax. By this change the apiary was placed upon a modern footing, the hives made uniform, the operations and manipulations of the apiary rendered more rapid, and its beauty and value increased.

The spring was very backward and rainy. During fruit-bloom the bees flew but little, and their influence upon the fertilization of the flowers of our fruits is seen in the almost complete failure in this vicinity of all tree fruits and others largely dependent upon the bees for the dissemination of pollen. As the rainy, cloudy weather did not cease until about the first of July, the early part of the clover bloom was lost to the bees. No supers were put on until July 8th, and at that time strong colonies were swarming, with almost no honey in the hives. All of the white surplus was taken from basswood, which yielded well. July 25th the season for white honey closed. A little surplus of late honey was gathered during August, and the bees filled up the hives well for winter. A yield of about 25 pounds of surplus per colony was obtained, and there are now in the apiary 55 colonies in excellent condition for winter.

CARNIOLAN AND PUNIC BEES.

During the winter of 1891 the apiary was entirely re-queened, only a few old queens being reserved for breeding. This season the opportunity was taken to replace all those of the former year's rearing that had proven themselves inferior. A number of Carniolan queens were introduced, and queens bred from them. Added familiarity with the cross of the Carniolan bee with the yellow race increases my satisfaction with their valuable traits. They have proven themselves equally as desirable as either race in its purity, and they have some points of superiority.

A test was made of the claims advanced for the Tunisian or so-called "Punic" bees. During the early part of the season they exhibited no traits that would distinguish them from the native black bee, showing the same nervousness under manipulation. They build large numbers of queen-cells, and do not cap their honey with that peculiar whiteness characteristic of the common black bee. After the close of the honey season they best showed their origin and distinctive peculiarities. Whenever attempts were made to handle them they became exceedingly angry. This trait of excessive irritability seems to be their most distinctive mark. As no point of superiority was discovered, their several manifest defects make them a race not to be recommended as desirable for introduction among our American bee-keepers.

REMOVING THE QUEEN TO PREVENT SWARMING.

As the bee-keeping industry develops, and new methods and devices come into use, each tending to lower the price of the product, an increased tension is placed upon the apiarist in an effort to manage large numbers of colonies to increase his annual yield. The natural tendency of bees to increase by swarming, and the care and attention occasioned thereby have given rise to various plans for its prevention or control. One of the best of these plans, yet one little used, is outlined in the following, the

value of which, at the suggestion of Mr. Aikin, of Loveland, Colo., I undertook to test:

Early in spring two colonies were selected, as nearly alike in strength as it was possible to get them. They were kept at the same strength, the amount of brood in the hives having been equalized several times. The harvest did not open until about July 6th, and upon the 8th supers were given them. July 12th queen-cells were found partly constructed in colony No. 1. The queen was removed, and four days, and also eight days afterward, all queen-cells were destroyed. On July 25th (13 days after her removal) the queen was returned. This colony did not swarm at all.

The other colony (No. 2) was allowed to work without interference, and it was not until July 21st that they swarmed. As the harvest from linden was about closing, the swarm was returned, and all queen-cells destroyed in the hope that they would not attempt to swarm again before the close of the season. They did not swarm, yet it may be supposed that this interference with their instincts tended slightly to decrease their energy. The results in total amount of honey gathered are as follows: No. 1 gained in weight 37 pounds between July 6th and 25th, and No. 2 gained 46 pounds during the same time.

If from the total gain of No. 2 we subtract 5 pounds as the weight of brood it contained in excess of the brood in No. 1 on July 25th, we still have 4 pounds as the amount of honey gathered by No. 2 greater than the amount gathered by No. 1. These colonies were both worked for comb honey with like treatment of supers.

This experiment is valuable testimony to prove that the removal of the queen to prevent swarming does somewhat affect the amount of honey gathered by the bees. The supers showed even a larger difference in the amount of honey stored in the sections for the reason that where the queen is absent the bees fill the brood-chamber with honey. When the queen is returned this will, to a greater or less extent, be removed to the sections. Although the interference in this manner, with the economy of the hive, probably always reduces the amount of honey stored, yet because of the lessening in the labor and watching necessary during the swarming season, I deem it advisable to follow this method when any similar plan seems necessary.

Agricultural College, Mich., Nov. 17.

(Continued next week.)

Some Facts About those Hybrid and Black Bees.

Written for the American Bee Journal

BY "MINNESOTA."

I note the criticisms by Mr. Jas. A. Green, on page 691, on the answers to my question, Query 867, on page 494, and I desire to reply by giving a brief history of my bees.

I follow diversified farming, and took up bee-keeping on account of poor health, thinking it would add to my income, and was adapted to my business.

I began with 4 colonies of hybrids (a cross of the Italians and blacks) some 12 years ago. For about 4 years following, my neighbors all around me had black bees. During a poor season my neighbors' bees all starved to death; since that time there have been no bees kept within 4½ miles from me. I do not restrain drone-rearing, or kill them; during the swarming season there are plenty of them in the air. Wild bees cannot winter here. Have not I a good reason for saying that my bees have reared queens from their own progeny?

How do I know that my bees are good, comparatively speaking, as Italians? By comparing their product and its quality with other apiaries equally situated.

There has been a general complaint for the last few years of a partial failure of the honey crop. At our State Fair I have been asked, "Why don't you bring your honey here? It has been a failure throughout the State."

I took some comb honey, stored by these hybrids, to the Fair last year, and took the first premium on the most attractive display of comb honey, and first on the display of 20 pounds of comb honey, quality and manner of putting up for market considered. I mention this to show that my hybrids are as good as Italians, as to the quality of their product.

With the exception of the poor season mentioned, my bees have always paid me a fair profit on the amount invested in them. They have done so well that I have hesitated about introducing new and strange blood among them. The object of my query was to find out from the respondents how long I could safely in-breed without deterioration.

I have found out from experience that for all practical purposes in this State, some grades of animals are equal, if not superior, to pure bloods. Why not bees?

I will acknowledge that I have paid

but little attention to the breeding of my bees. They have done it better than I could have done, and I very much doubt if Mr. Green could have improved on their methods.

The fact of the case is, my bees have a good location; they take good care of themselves without any tinkering or fussing on my part; they give me good, paying crops every year, and I am one of the old fogies—willing to "let well enough alone."

Wilmar, Minn.

Revolving Hive-Stands a Failure as a Non-Swarming Method.

Written for the American Bee Journal

BY B. TAYLOR.

In the BEE JOURNAL of June 1st, I notice an article from the pen of R. F. Holtermann, on methods used for prevention of swarming, in which he says:

> Upon a post rested two pieces of timber, the pieces crossing one another over the post, the whole forming four arms which could be revolved upon the post. At the end of each arm, and upon the arm, was a colony of bees, and from the first day the bees could fly, the stand was given one-quarter turn. In this way the flying bees, every day they flew, went into a new home, and the swarming impulse was kept down.

Nine years ago I commenced experiments to prevent swarming, or at least to control increase. My first move was to make some 50 hive-stands long enough to hold 2 colonies each, and upon these stands I placed one colony of bees in the spring, where they remained until swarming time. When they swarmed, the parent colony was moved to the vacant end of the stand, upon which it stood, with its entrance turned exactly opposite from its former position. The new swarm was hived in a new hive, on starters, and placed on the stand where the hive of the parent colony had previously stood. Thus the two hives faced in opposite directions, the new swarm getting all the field bees, making it very strong for storing section honey.

I should explain here that this new swarm was hived in one section of my double hive, containing 10 frames 6x13⅓ inches, and section supers added, to give the requisite room, a queen-excluding honey-board being placed between supers and hive.

In six days from the time of swarming all queen-cells were cut from the parent colony but one, and the old colony allowed to rear a young queen, provided I had not given it a newly-hatched queen at the time of swarming.

The two hives were left until the end of the white honey-flow, when all the sections were taken from the new swarm, the queen removed (unless an extra good one), and the old colony, with its young queen, placed on top of the new swarm; a queen-excluding honey-board placed on top, and one or more sections of my small hives on top of all, to have their brood-combs filled with dark honey, for extracting, or to be kept for fall or spring feeding, as required. Let me here say that this is the most profitable method of feeding that I have ever tried. Just give each colony, in the spring, from these reserved and nicely-sealed combs, enough for all emergencies; cover them warmly, and then let them alone until time for putting on the sections, and the colonies with their young queens and ample stores will build up better than any way I have ever tried.

I will not give the various steps by which I advanced my experiments from this starting point, until eight years after, when they culminated in my revolving hive-stand of last year. I expected the revolving stand to prevent swarming, and that was the only motive for making it. My stand held 6 colonies, and it was revolved one-sixth of the way around each day, during the entire season. The bees had a new hive each day, and worked in complete harmony with a *new queen each day;* but when a colony commenced queen-cells, the next colony, and the next, and the next, each in turn pushed the cells forward to completion, *instead of tearing them down*, as I had expected, and my hopes of a non-swarmer by this method was not only defeated, but I was entirely astonished to find that these 6 colonies swarmed three times more than equally good colonies in the house apiary, and 1½ times more than bees left undisturbed in the open yard. Let no bee-keeper waste one cent of money, or minute of time, on the revolving stand to prevent swarming!

But while I entirely failed to realize my expectations in preventing swarms, the revolving stand led the way to what I have full faith will, without machinery of any kind, entirely prevent swarming, with not more than five minutes' work to each colony per week, and with hives less costly than common, plain frame hives.

I expect to start an out-apiary of 50

colonies that I can, by visiting one-half day each week, run with the very best results, without an attendant, or the danger of losing a single swarm, and with less expense for fixtures than ordinary hives. I now have the hives for my new method completed, and beekeepers will hear more about the result hereafter.

Forestville, Minn.

Benson Lossing, L. L. D., the distinguished historian, has said that Miss Holley (more familiarly known to a loving public as Samantha Allen, Josiah Allen's wife), "is a wise and efficient reformer; an acute and moral philosopher; a genuine humorist, and a most skillful limner of special phases of social life everywhere to be seen. Her 'epsodian' sermons are dramatic and incisive; her philosophy is self-demonstrative, and her humor always has beneficience, and not mere amusement as its prime motive. Her book, 'Samantha at Saratoga,' is genial, and not so keenly satirical like Cervantes, who set all Europe a-laughing the tom-fooleries of chivalry out of existence; like Holmes, who by a patriotic little poem saved the frigate Constitution from destruction; like Whittier, who dismissed from our statute books a barbarous law by the burning words of his 'Prisoner for Debt;' like Mrs. Stowe, who pierced the heart of the institution of slavery by her pen; Miss Holley's books are doing in a quiet way a great work for the promotion of needed social reforms. I know of no volume more healthful for perusal by the young and the old, the learned and the unlearned."

Read our offer of "Samantha at Saratoga," as premiums for getting new subscribers to the BEE JOURNAL. You will find it on page 5 of this number of the BEE JOURNAL.

Alley's Queen-Rearing book, or "Thirty Years Among the Bees," gives the result of over a quarter-century's experience in rearing queen-bees, and describing the practical, every-day work. By Henry Alley. It contains an "Appendix," showing the improvements made in queen-rearing the last four years. Very latest work of the kind. Nearly 100 pages, with illustrations. Price, postpaid, 50 cents; or clubbed with BEE JOURNAL one year, for $1.30.

Starters in Sections, and the 8 and 10 Frame Hives.

Query 878.—When only starters are used, and the brood-chamber is not contracted, do bees commence work in the sections quicker in the eight or in the ten frame hive, supposing that the amount of both bees and previous year's honey is proportionate to the number of frames?—Colorado.

I think they will.—J. P. H. BROWN.

I judge there would be no difference.—M. MAHIN.

Very little, if any, difference.—J. M. HAMBAUGH.

I have never seen any difference.—G. W. DEMAREE.

I do not understand the question.—MRS. L. HARRISON.

In such case the result would be about equal in both sizes.—DADANT & SON.

Under such conditions there is little, if any, difference.—MRS. J. N. HEATER.

I don't know, but I should say there would be not much difference.—J. H. LARRABEE.

I don't know, but I think they might in the ten-frame, because the stronger colony is there.—C. C. MILLER.

I have never tried this, but I should think the difference would be in favor of the smaller hive.—C. H. DIBBERN.

I don't think the number of frames would make any difference, if the bees and honey were in proportion.—E. FRANCE.

If each colony were composed of bees possessing the same qualities, I would expect no perceptible difference.—R. L. TAYLOR.

When are they proportionate? If early in the spring, then I should expect work to commence sooner in the ten-frame hive.—P. H. ELWOOD.

I do not know that there is any difference, but I do think that you are more apt to get your proportion if you have the ten frames.—JAS. A. STONE.

If the bees and stores are proportionate to the number of frames, there will be no difference. Usually, though, they are not.—JAMES A. GREEN.

I presume it would be about the same. But on eight frames they would be usually more crowded, and so would go up more quickly.—A. J. COOK.

I prefer an eight-frame hive, though the difference is little. The better the honey-flow, the quicker they commence work in the sections.—WILL M. BARNUM.

In the first phrase, I suppose sections are referred to. If the colonies are proportionately strong, I can see no reason why there should be any difference.—EUGENE SECOR.

If you mean when a swarm is hived in an 8 or 10 frame hive, then I answer, in the 8-frame hive. If you do not so mean, then I do not understand the question.—G. M. DOOLITTLE.

The eight frame hive. Bees prefer to store honey above the brood, and an 8-frame hive is always preferable, in my mind, for comb honey. If I worked for extracted honey alone, I think I would use a larger hive.—EMERSON T. ABBOTT.

I have never used the 10-frame Langstroth hive. I should think there would be no difference, even by experimentation it would be impossible to answer this. Two colonies could not be had exactly alike otherwise, to make a fair test.—R. F. HOLTERMANN.

With an average number of bees to the frame, say 4,000, I think there would be no perceptible difference as to time of commencement in the sections, but with 8,000 more bees in the 10-frame hive, I should consider my chances better for a honey crop than with the smaller hives.—S. I. FREEBORN.

In my own experience, I have found no particular difference. Bees, as a rule, will not occupy sections while they have room below, but this rule fails often. I use the *close-spacing* method, to force my bees into the sections, and it has always proved a success during the 10 or 12 years since I first "caught on" to the idea.—J. E. POND.

Since I have been using an 8-frame hive I have not produced any comb honey, but many years ago I beat the record in Texas on securing 300 one-pound sections from one colony in a 10-frame Simplicity hive, and as I believe in letting good enough alone, I would use a 10-frame hive. But to answer your question direct, I will say I don't know.—MRS. JENNIE ATCHLEY.

☞ **Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.**

Dandelion Honey.

The first honey put on the market here this season was gathered from dandelion bloom, I think. This is the earliest date (June 23rd) that surplus, in nicely finished sections, has ever been offered for sale in this locality, to my knowledge.

The comb in the sections above referred to is very yellow, resembling golden-rod. The honey has quite a distinct dandelion flavor. It will probably not be liked by many. EUGENE SECOR.

Forest City, Iowa, June 24, 1893.

Large Crop of White Clover.

I am glad to say that my bees are doing well. I had one very large swarm to issue on May 9th; I hived them in one of the Nonpareil hives, in one brood-chamber. I put on a super, and to-day it has 24 one-pound sections full of very nice honey, but not all capped over. I have 4 other colonies that are doing well in the supers—nearly all full. There is a very large crop of white clover here, and bees work on it early and late. N. W. SHULTZ.

Shreve, O., June 17, 1893.

An Experience with Robber Bees.

Robbery germinated in my apiary yesterday. A 3-frame nucleus of that "gentle 5-banded stock," were robbing a full 8-frame hive of Cypro-Italians, and had quite a brisk trade started before I discovered them. Whew, how those "golden pets" did work! I tried everything, and it seemed as if the strong colony (the swarm weighed 12 pounds on May 10th) was doomed to destruction. They did not even defend themselves against these saucy intruders. I noticed that these Italians, instead of "smellin' round and vegetatin'" like blacks and hybrids, walk right in and proceed to fill up their tanks without further ceremonies.

It happened in the middle of the day. After exhausting my limited stock of beelore, and books and papers for all available plans, I was ready to give up in despair, when I resolved to adopt the following plan, which proved a complete success:

I closed the entrances to both hives, and

removed them from the stand to one side a few minutes, then exchanged places, viz.: the robbers on the robbed, and the robbed on the robbers. Then I opened the entrances to both hives, and out they came. Were they bewildered? You ought to have seen them. Of course, the robbed remained inactive, while some of the robbers came and brought them back their stolen sweets. This effectually put a damper on their frolic.

I was wondering the last few days how these 5-banded beauties, being so weak, could carry so much honey, as I had to give them four frames of empty comb to store their rapidly accumulating stores. I have ascertained that they wiped out 3 colonies for my neighbor Spoon. Spoon told me the other day his bees were just boiling and rolling in honey at 2 p.m.; at 4 he didn't know what was the matter with them, and upon examination he had 4 bees left in those "boxes his grandfather used to have." I recollect now that I was rejoicing how this 3-frame colony of thieving rascals were obtaining nectar from some unknown source. Now I've had a dose of the same medicine.

I would like to hear from some of the Indiana subscribers, through the valuable AMERICAN BEE JOURNAL.

J. C. WALLENMEYER.

Evansville, Ind., June 10, 1893.

Bees in Weak Condition.

Owing to the cold, rainy weather of late, and backward spring, bees have not been able to gather enough stores to sustain life. Those that have not fed their bees, are now having a great loss. White clover was badly winter-killed here. Basswood will be in bloom in about ten days. The only surplus that I look for is that of fall honey, owing to the weak condition of the bees.

JOHN LEE.

Cedar Bluffs, Nebr., June 16, 1893.

Getting but Little Honey.

This is rather a bad spring, so far, for bees in this place. Mine have just doubled themselves by natural swarming, and at this time they are not getting any honey, or very little. A. J. WEST.

Paxton, Ills., June 19, 1893.

Very Rainy Weather.

Last fall I had 6 colonies of bees, and the winter was too severe for them. Some froze, and the balance spring dwindled. I bought 6 colonies more in the spring, but I fear they will follow the others, if this rainy weather continues much longer. There has not been ten clear days since the middle of March, and there seems to be but little nectar. Besides, the bees cannot get out after what little there is, without taking their umbrellas; but, of course, they are supposed to do that if they gather honey in Washington.

Two of my colonies seem to have the nameless disease. I tried putting salt in one hive, and they are doing better than the other. Whether the salt helped or not, I am unable to say. No swarms has issued in this part of the country yet. If it ever stops raining, so the bees can do any good, you probably will hear from me again.

THOS. WICKERSHAM.

Wickersham, Wash., June 15, 1893.

Booming on Honey-Dew.

We have no white clover honey this year. Bees are booming on the honey-dew.

FRED BECHLY.

Searsboro, Iowa, June 19, 1893.

Bees Wintered Well.

Bees did not do well last year on account of the wet weather and cool spring, and we do not think there is any improvement over last year. Our bees wintered well, and we did not lose any out of 140 colonies, excepting 4 were queenless. They were wintered on the summer stands, but judging from what we can hear, about half of the bees through the country died, mostly from starvation. My father says the last two years were the poorest for bees that he has experienced in about 25 years. It is not only in bees, but the fruit-growers are in the same condition, but we hope that sunshine will follow rain.

The BEE JOURNAL is a welcome visitor, having been much improved by the present publishers. CLARA SCHUMACHER.

Weston, Mo., June 19, 1893.

Tincture of Arnica for Bee-Stings.

A very valuable remedy for bee-stings is tincture of arnica. While an ordinary sting causes inflammation for two or three days, tincture of arnica makes it last only a few hours. Ladies and gentlemen who don't care about having a bad-looking face should try it.

We are having a splendid honey-flow here. Swarming is at hand.

"MONTREAL SUBSCRIBER."

Montreal, Canada, June 21, 1893.

Bees Doing Finely.

Bees are doing finely here now with a favorable prospect. W. H. NORTON.

Skowhegan, Me., June 23, 1893.

Losses in Wintering.

My bees are doing all right. I lost only one colony the past spring. I think it was queenless. It was in an old hive, and I could not take the frames out. John Ayrhart lost 17 colonies last winter, and George Coolie lost all. Mr. Evans lost all. C. D. Clifford had one colony, and lost it. Mr. McGregor also had one and lost it, as did a great many others. I think that the report of Mr. Thos. Johnson, in the BEE JOURNAL is about correct.

JAMES HARDIE.

Dedham, Iowa, June 16, 1893.

Getting Honey—Worms on Basswood.

After last season's reverses in our chosen pursuit, it is encouraging to hear the contented hum of bees gathering honey from white clover. I put into winter quarters 23 colonies, and lost one in the cellar, and two by dwindling on the summer stands. I now have 25 colonies in fine condition storing honey in the supers. My neighbors lost from 25 to 100 per cent. Most of our beemen are discouraged, but I hope for better returns this season.

There is a worm (commonly called "measuring worm"), working on the trees—maples, basswood, and fruit-trees. Can any one tell whether they ever destroy the blossoms on basswood? I can't do without the BEE JOURNAL. Long may it live. DANIEL SPRAGUE.

Hub City, Wis., June 15, 1893.

Storing Surplus Honey Fast.

Bees are doing well—never better. They are storing surplus very fast. I think that Kansas will soon take rank with the first honey-producing States. J. H. RUPE.

Williamsburg, Kans., June 19, 1893.

Red Clover Preferred to the White.

I would be pleased to hear more from Northern Michigan. In my locality, or rather, my bees do not work on white clover. We couldn't be blessed with more white clover than at present, and it is entirely unnoticed by the bees, but the red clover is all alive with the busy little workers.

Many thanks for publishing such a valuable paper. I have "A B C of Bee-Culture," and other books, but I can get more information out of the AMERICAN BEE JOURNAL than all the books, as it gives experience from all over the world in bee-culture. J. W. MILLER.

Rodney, Mich., June 26, 1893.

Convention Notices.

NORTH CAROLINA.—The Carolina Bee-Keepers' Association will hold its sixth semi-annual meeting on July 20, in Charlotte, N. C., at the Court House, at 10 o'clock a.m. All persons interested in bee-keeping are invited.

Steel Creek, N. C. A. L. BEACH, Sec.

ILLINOIS.—The summer meeting of the Northern Illinois Bee-Keepers' Association will be held at the residence of O. J. Cummings, 2 miles northeast of Rockford, Ills., on Aug. 15th, 1893. A good meeting is anticipated. Everybody is invited. Come and see Mr. Cumming's methods of handling bees.

New Milford, Ills. B. KENNEDY, Sec.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture it every foreign land. FRANK BENTON, Sec.

Washington, D. C.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.

July 20.—Carolina, at Charlotte, N. C.
A. L. Beach, Sec., Steel Creek, N. C.

Aug 15.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.

Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

☞ **In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.**

North American Bee-Keepers' Association

PRESIDENT—Dr. C. C. Miller....Marengo, Ills.
VICE-PRES.—J. E. Crane.....Middlebury, Vt.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.

Please Don't send to us for bee-supplies, as we do not deal in them, and your order, if sent to us, must necessarily be delayed in filling. Just patronize those supply dealers who advertise in our columns, and you will thus please us most. We shall be glad to furnish you any bee-book and the BEE JOURNAL, but when it comes to supplies—well, we are not "in it."

Your Neighbor Bee-Keeper—have you asked *him* or *her* to subscribe for the BEE JOURNAL? Only $1.00 will pay for it for a whole year. And, besides, *you* can have Newman's book on "Bees and Honey" as a premium, for sending us two new subscribers. Don't neglect your neighbor! See page 3.

Speaking of Family Story Papers, a well-known writer once said that the *Family Ledger* published in Los Angeles, Calif., is, without question, the cheapest and best printed illustrated family weekly in the world. Over 60 complete serials are run in a year's issue. The paper has many copyrighted features, and is illustrated each week. To those who are unacquainted with this remarkable periodical, a special offer is made of 10 weeks for 10 cents. Few that read story papers will allow an opportunity to pass whereby they can secure so unique a paper for such a small sum.

Honey & Beeswax Market Quotations.

The following Quotations are for Saturday, July 1st, 1893:

CHICAGO, ILL.—There is not much movement in comb honey. Prices range at from 12@16 and 17c., all good grades bringing 15@17c. A few cases of the new crop have arrived and brought the top prices. Beeswax is very steady at about 25c. Extracted honey is moving very slowly at from 6@8c.
R. A. B. & Co.

KANSAS CITY, MO.—Receipts and stocks very light, demand good. We quote: No. 1 white 1-lbs. 16@17c.; No. 2, 14@15c.; No. 1 amber 1-lbs. 15c.; No. 2 amber, 10@12c. Extracted, white, 7@7½c.; amber, 5@6.
Beeswax—20@23c. C-M. C. C.

CINCINNATI, O.—New extracted has commenced to arrive lively, and is in fair demand at 5@8c. There is a slow demand for comb-honey, and no choice on our market; prices nominal.
Beeswax—Demand good, at 22@25c for good to choice yellow. Supply good. C. F. M. & S.

NEW YORK, N. Y.—New crop of extracted is arriving freely. Market is quiet and demand limited. Fancy grades sell at from 7@8c.; common to fair, at from 60@70c., as to body, color and flavor. Beeswax, 26@27c.
H. B. & S.

SAN FRANCISCO, CALIF.—Choice extracted is scarce at 7@7½c., and demand heavier than supply. Choice comb is not scarce at 10@12c., according to quality, 1-lbs. Beeswax is neglected at 22@23c. S., L. & S.

KANSAS CITY, MO.—Demand good, supply very light. White 1-lbs., 16c. Extracted, 6@7c. No beeswax on the market. H. & B.

BOSTON, MASS.—Honey is selling slow and prics are lower. Best 1-lb. comb, 16@17c.—Extracted, 8@10c.
Beeswax—None on hand. B. & R.

ALBANY, N. Y.—Our honey market is dull at present. There are some receipts of new extracted, but no reliable price established yet. Beeswax is more plenty, at 27@28c. for good color. H. R. W.

MINNEAPOLIS, MINN.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days. Fancy white conb honey, 18@20c.; No. 1 white, 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable. J. A. S. & Co.

Amerikanische Bienenzucht is the name of a bee-book printed in the German language, which we now have for sale. It is a hand-book on bee-keeping, giving the methods in use by the best American and German apiarists. Illustrated; 138 pages; price, postpaid, $1.00. It is just the book for our German bee-keepers. We club it with the BEE JOURNAL for one year, for $1.75.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.
R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.
F. I. SAGE & SON, 183 Reade Street.
HILDRETH BROS. & SEGELKEN, 28 & 30 West Broadway

San Francisco, Calif.
SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.
J. A. SHEA & Co., 14 & 16 Hennepin Avenue.

Kansas City, Mo.
HAMBLIN & BEARSS, 514 Walnut Street.
CLEMONS-MASON COM. Co., 521 Walnut St.

Albany, N. Y.
H. R. WRIGHT, 326 & 328 Broadway

Hamilton, Ills.
CHAS. DADANT & SON.

Cincinnati, Ohio.
C. F. MUTH & SON, cor. Freeman & Central avs.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for $1.10.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

TO EXCHANGE—High Grade Safety Bicycle, for Honey or Wax.
17Atf J. A. GREEN, Ottawa, Ill.

TO EXCHANGE for Apiarian Supplies—a Photographic Outfit and two Volumes of Henry M. Stanley's "Darkest Africa," (new).
CURTIS HUNT,
1A1t Durhamville, N. Y.

FOUL BROOD CURED without drugs or medicines of any kind. I will go to any foul-broody apiary, and GUARANTEE to cure it without destroying bees or interfering with brood-rearing. No charge for time, car fare, or services, if not successful. Write to me for terms, etc. NORMAN AUSTIN,
26Atf 6441 Wright St., Englewood, Ills.

Advertisements.

I Will Convince You

If you will send for a sample of my 5-banded Bees. Sample free. 1 Untested Queen, 75c.; six for $4.25; 12 for $8.00.
Breeding Queens, $2.00; Extra Fine, $5. Circular Free. **J. F. MICHAEL,**
1D6t GERMAN, Darke Co., OHIO.

Five-Banded Golden Red Clover Bees!

If you want Bees that will work on Red Clover, try one of our **5-Banded Queens.**
Untested, 75 cts.; ½ doz. $3.60 Tested, $1.50. Sel. Tested, $2.00. The best $4.00. Descriptive Circular Free.
LEININGER BROS.
Ft. Jennings, Ohio.
24Atf *Mention the American Bee Journal.*

SOLID YELLOW QUEENS.

OF the 5-Banded variety warranted to get Bees with at least 3 broad bands. So far over ½ this year show all of their Bees **Solid Yellow** on the first 4 segments (no **Bands** about it), and some yellow on the fifth, and **very few** show Bees **all** as poor as 3-banded, and **not one** mismated. These Queens are all yellow, but the tip is slightly darker than the rest of the abdomen.
These Bees are **very** gentle, and there is no bee that can surpass them for Business.

BEAUTY, BUSINESS, GENTLENESS,

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Reference—George W. York & Co.
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S.F. Trego, Swedona, Ill

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Albino, Italians and Golden Queens

FOR SALE. Warranted Purely Mated, $1.00 each; $5.00 for ½ dozen; $9.00 per dozen. Bred in separate yards 3 to 4 miles apart. I took 1st Premium on each race of bees at the Iowa State Fair in 1892 with Eugene Secor, of Forest City, L. G. Clute and Frank Coverdale as judges.
Send in your orders and get **Queens second to none in Grade in the U. S.**

THOS. JOHNSON,
1Atf COON RAPIDS, Carroll Co., IOWA.
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